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Form Approved  
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1. AGENCY USE ONLY (Leave blank)		2. REPORT DATE	3. REPORT TYPE AND DATES COVERED FINAL REPORT 01 Feb 92 - 30 Nov 95	
4. TITLE AND SUBTITLE  Studies in Scanning Probe Microscopy			5. FUNDING NUMBERS  61102F 2301/GS	
6. AUTHOR(S) Professor Sarid				
7. PERFORMING ORGANIZATION NAME(S) AND ADDRESS(ES) Optical Sciences Center University of Arizona Tucson, AZ 85721			AFOSR-TR-96  0170	
9. SPONSORING / MONITORING AGENCY NAME(S) AND ADDRESS(ES)  AFOSR/NE 110 Duncan Avenue Suite B115 Bolling AFB DC 20332-0001			10. SPONSORING / MONITORING AGENCY REPORT NUMBER  F49620-92-J-0164	
11. SUPPLEMENTARY NOTES				
12a. DISTRIBUTION / AVAILABILITY STATEMENT  APPROVED FOR PUBLIC RELEASE: DISTRIBUTION UNLIMITED			12b. DISTRIBUTION CODE	
13. ABSTRACT (Maximum 200 words)  The following is the Final Report on our work in the field of Scanning Probe Microscopy (SPM), which has been funded by the AFOSR under Contract F49620-92-J-0164. The AFOSR funding was instrumental in the establishment of a multi-lab facility at the Optical Sciences Center, which performs research in SPM using two ultrahigh vacuum (UHV) STM facilities, and several Atomic Force Microscopy (AFM) facilities. The fabrication and characterization work performed in the SPM Laboratory is supplemented by infrared (IR) spectroscopy, high resolution transmission electron microscopy (HRTEM), and scanning electron microscopy (SEM), available in other departments.				
14. SUBJECT TERMS			15. NUMBER OF PAGES	
			16. PRICE CODE	
17. SECURITY CLASSIFICATION OF REPORT UNCLASSIFIED			18. SECURITY CLASSIFICATION OF THIS PAGE UNCLASSIFIED	19. SECURITY CLASSIFICATION OF ABSTRACT UNCLASSIFIED
20. LIMITATION OF ABSTRACT				

19960502 040

## FINAL REPORT TO THE AFOSR "STUDIES IN SCANNING PROBE MICROSCOPY"

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### Abstract

The following is the Final Report on our work in the field of Scanning Probe Microscopy (SPM), which has been funded by the AFOSR under Contract F49620-92-J-0164. The AFOSR funding was instrumental in the establishment of a multi-lab facility at the Optical Sciences Center, which performs research in SPM using two ultrahigh vacuum (UHV) STM facilities, and several Atomic Force Microscopy (AFM) facilities. The fabrication and characterization work performed in the SPM Laboratory is supplemented by infrared (IR) spectroscopy, high resolution transmission electron microscopy (HRTEM), and scanning electron microscopy (SEM), available in other departments. The report contains the list of our publications related to the OSR which appeared in refereed journals, as well as two books titled *Scanning Force Microscopy, With Applications to Electric, Magnetic, and Atomic Forces* published by Oxford University Press in 1991 and a revised edition in 1994.

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